Handling Applications

An application is a collection of Natural objects and non-Natural objects which build a functional unit from the business point of view.

There are two types of applications:

- **Base application**
  A set of Natural objects that are stored in the same user system file (FUSER). You can link objects of different libraries to a base application.
- **Compound application**
  You can link several base applications to a compound application. A compound application can be spread across different hosts.

For detailed information, see Application Concept in the SPoD documentation.

The following topics are covered below:

- Prerequisites
- Displaying the Application Workspace
- Creating a Base Application
- Creating a Compound Application
- Linking Objects to a Base Application
- Linking Base Applications to a Compound Application
- Managing Linked Objects
- Mapping an Application
- Displaying the Properties of an Application

Note:
The applications that you will create with the exercises below do not run. Their purpose is just to demonstrate the basics for handling applications.

Prerequisites
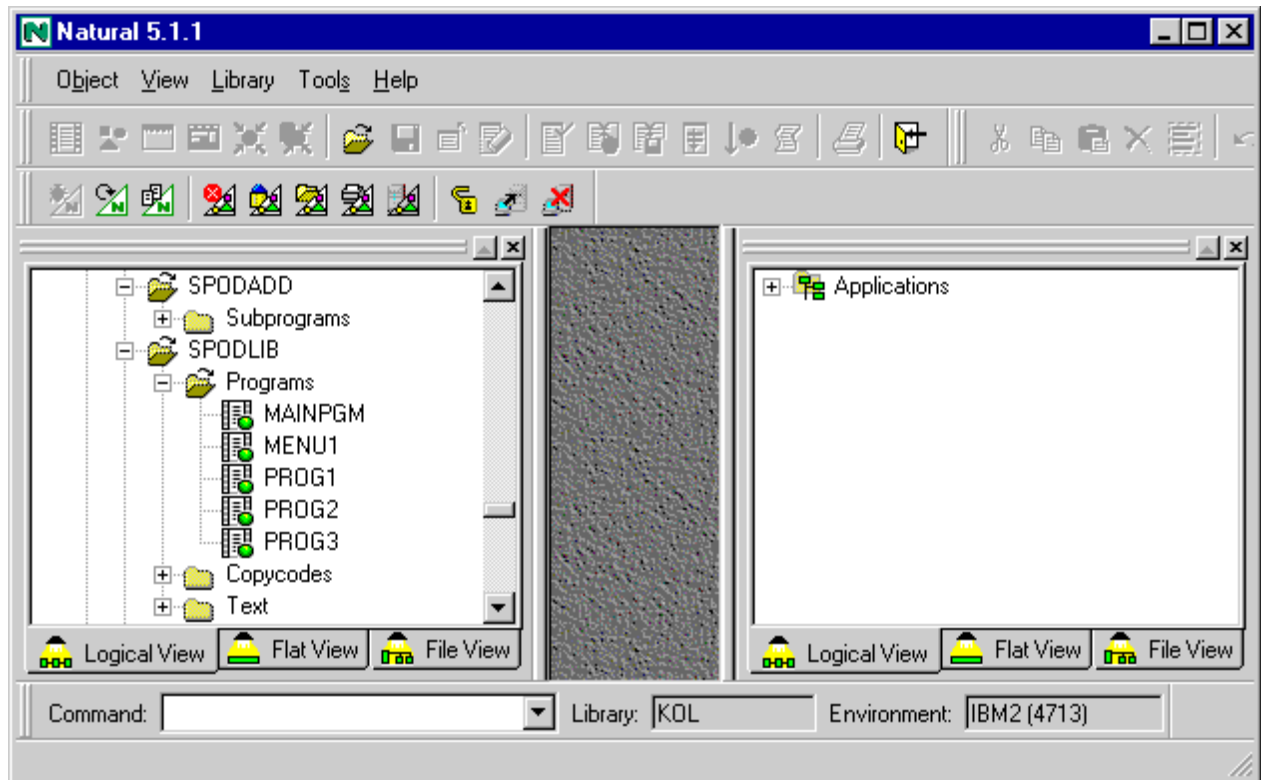
It is assumed for the following exercises that you have:

- copied the contents of the system library SYSSPODA to your user library SPODLIB,
- moved all subprograms from library SPODLIB to library SPODADD,
- copied the program PGMCHECK from library SPODLIB to library SPODTEST

as described previously in this tutorial.

Displaying the Application Workspace

The application workspace is the area in which all known applications can be displayed. It provides the same views as the library workspace (logical view, file view and flat view). Your application workspace is initially empty.

When you start Natural Studio for the first time, your application workspace is not shown. The exercise below explains how to display it. It is initially displayed at the right of the Natural Studio window.

▶ **To toggle application workspace display**

● From the **View** menu, choose **Application Workspace**.
  Or press ALT+2.
  When the application workspace is displayed in the Natural Studio window, a check mark is shown next to the **Application Workspace** command.
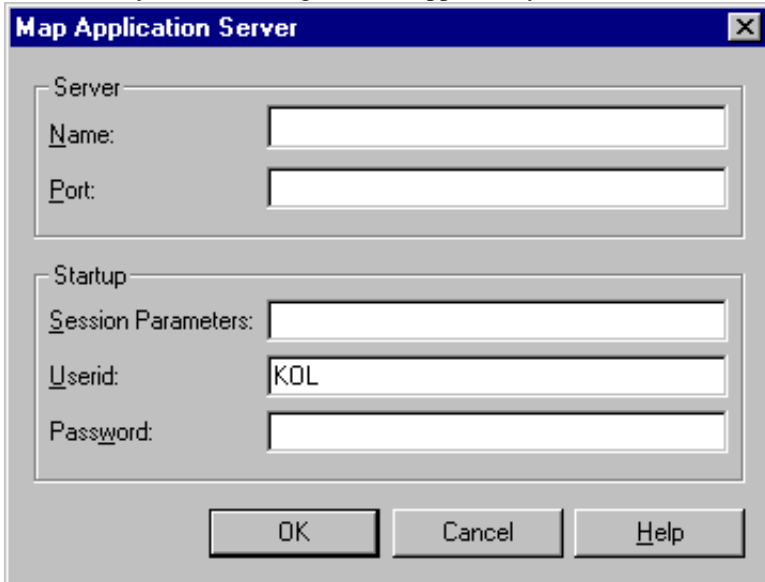
Creating a Base Application

You will now create two base applications with the names SPODAPPL1 and SPODAPPL2. You will create them on the same development server that you have previously defined for library view.
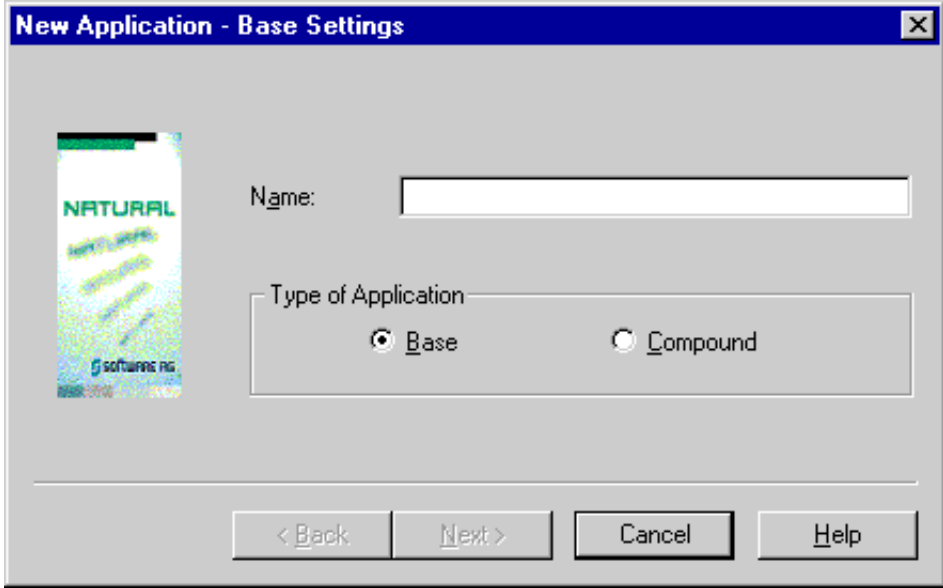
▶ **To create a new base application**

1. In the application workspace, click the node name "Applications" with the right mouse button.
2. From the resulting context menu, choose **New**.
   The "Map Application Server" dialog box appears. This dialog box appears when you work with applications for the first time. You have to enter the development server on which the Application Manager is located. A development server session will then be started for the connection to the Application Manager. When Natural is started the next time, the development server session for the Application Manager connection will be started automatically and this dialog box will appear only if additional information (e.g. a password) is required.
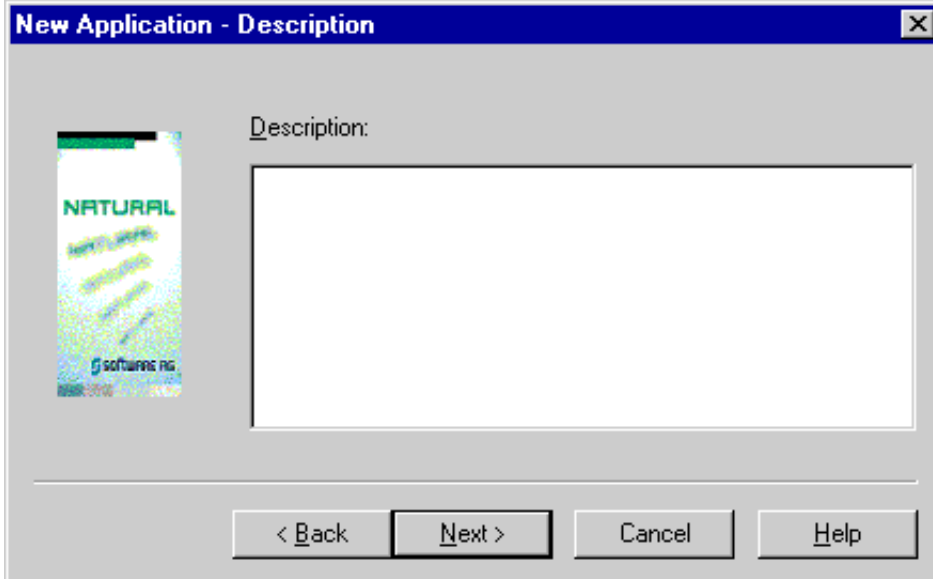

3. In the "Name" text box, enter the name of the development server on which the Application Manager is located.
4. In the "Port" text box, enter the port number of the development server.
5. If Natural Security is installed on the development server, specify the required password in the "Password" text box. Otherwise, leave this text box blank.
6. Choose the **OK** button.
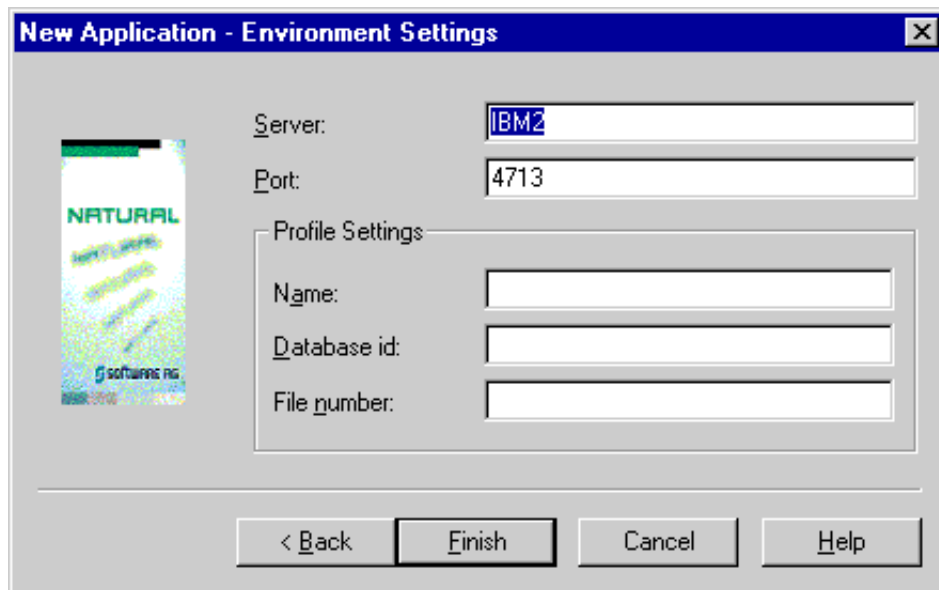   The "New Application - Base Settings" dialog box appears.

7. Enter the name SPODAPPL1 for your first base application.
8. Make sure that the "Base" option button is selected.
9. Choose the **Next** button.
   The "New Application - Description" dialog box appears.

10. Optional. Enter a description for your application.
    This can be any text.
11. Choose the **Next** button.
    The "New Application - Environment Settings" dialog box appears.

Name and port number of the application server that you have previously mapped ("Map Application Server" dialog box) are provided as the default values for the new application. For this tutorial, we will use the default values. The application server is the development server where the Application Manager is located.
Note:
It is also possible to use another development server.

12. Optional. Specify the profile settings (Name, DBID and FNR) to control the session settings as on the mainframe.

13. Choose the **Finish** button.
    Note:
    If a password is required, the "Map Application *applicationname*" dialog box appears. Server name, port number and session parameters cannot be changed in this dialog box. They are fixed for an application. If this dialog box appears, specify the password and choose the **OK** button.
    The new application is now mapped. It is shown in the application window. Each time you map an application, a new development server session is started for this application.

14. Repeat the above steps to create the second base application with the name SPODAPPL2.
    You will later link objects to these two base applications.
    Note:
    Since you have already defined the development server for the connection to the Application Manager, the "Map Application Server" dialog box is not shown for the second application.

Creating a Compound Application

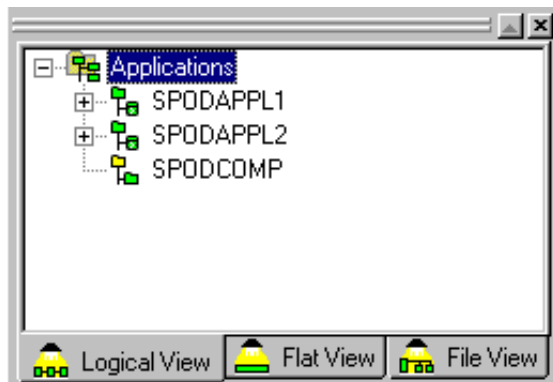You will now create a compound application with the name SPODCOMP.

▶ **To create a new compound application**

1. In the application workspace, click the node name "Applications" with the right mouse button.
2. From the resulting context menu, choose **New**.
   The "New Application - Base Settings" dialog box appears.
   Enter the name SPODCOMP for your compound application.
3. Make sure that the "Compound" option button is selected.
4. Choose the **Next** button.
   The "New Application - Description" dialog box appears.
5. Optionally. Enter a description for your application.
   This can be any text.
6. Choose the **Finish** button.
   You will later link your two base applications to this compound application.
   Note:
   If a password is required, a dialog box appears in which you have to specify the password.

Your application workspace should now look as follows:

Linking Objects to a Base Application

You can link any existing Natural object of the attached development server (for example, a program or map) to your application.
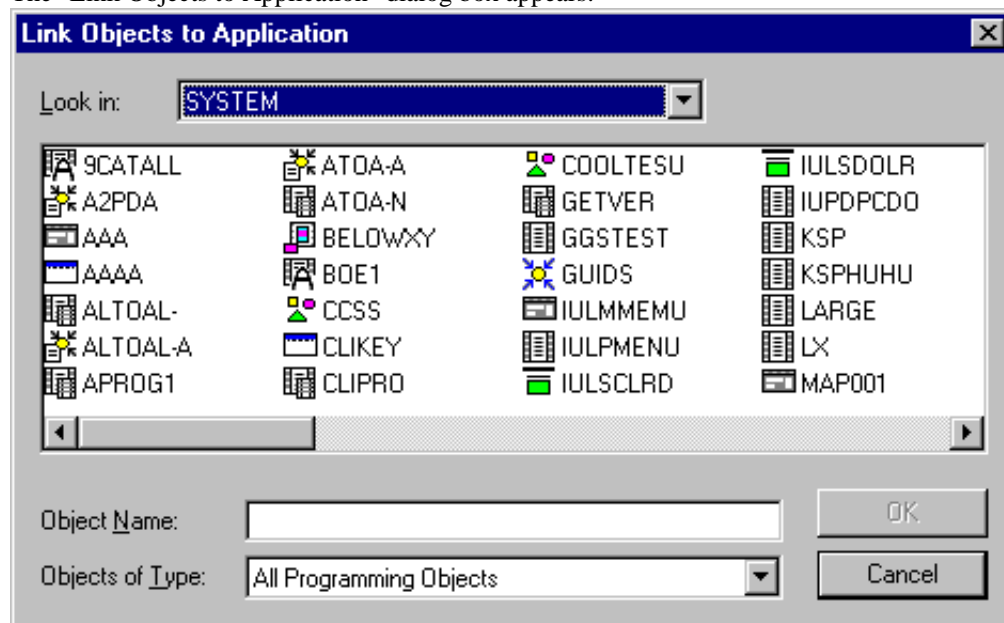
With the exercise below, you will link the following objects to your base applications:

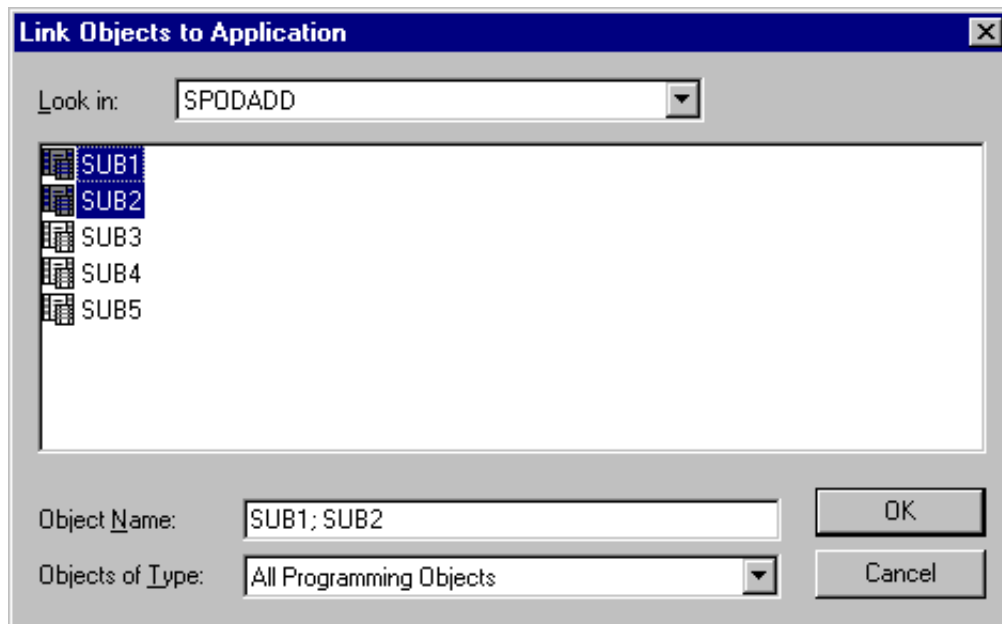|	SPODAPPL1	SPODAPPL2
SPODADD	SUB1 SUB2	SUB2
SPODLIB	MAINPGM MENU1 PROG3 TEXT1	MENU1 PROG1 TEXT2
SPODTEST		PGMCHECK

▶ **To link objects to a base application**

1. In the application workspace, click your base application SPODAPPL1 with the right mouse button.
2. From the resulting context menu, choose **Link**.
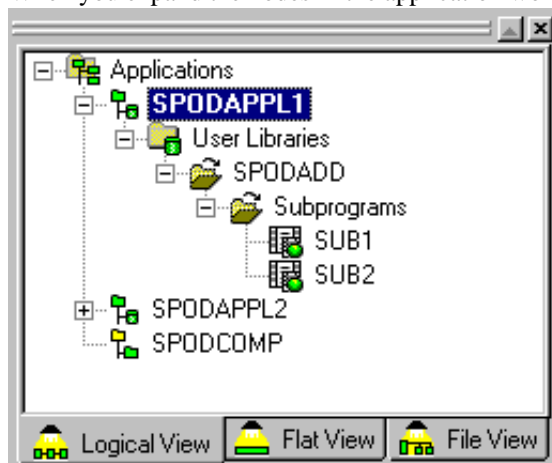   The "Link Objects to Application" dialog box appears.

3. From the "Look in" drop-down list box, select the library SPODADD.
   The content of the selected library is now shown in the dialog box.
4. Select the objects SUB1 and SUB2.
   To select more than one object, press CTRL while selecting the objects with the mouse.

5. Choose the **OK** button.

When you expand the nodes in the application workspace, the linked objects are shown.

Note:

In logical view, the selected objects are automatically placed in the corresponding folders (i.e. a "Programs" folder is shown for all programs that you have selected).

6. Repeat the above steps to link the remaining objects as indicated in the above table.

Note:

If you notice that you have linked a wrong object to your base application, you can unlink it. To do so, select the wrong object in the application workspace, click the right mouse button and from the resulting context menu, choose **Unlink**.

Linking Base Applications to a Compound Application

You can link any existing base application on the attached development server to a compound application. You can also link base applications that are stored on different servers. A compound application thus allows you to combine objects that cannot be combined in library workspace.

You will now link your two base applications SPODAPPL1 and SPODAPPL2 to your compound application SPODCOMP.

▶ **To link base applications to a compound application**

1. In the application workspace, click your compound application SPODCOMP with the right mouse button.
2. From the resulting context menu, choose **Link**.
   The "Link Application to Application" dialog box appears.

3. Select your first base application named SPODAPPL1.
4. Optionally. If a password is required, specify it in the "Password" text box.
   If you do not specify a required password, an additional dialog box will later prompt you for this information.
5. Choose the **OK** button.
6. Repeat above steps to link second base application named SPODAPPL2.

Managing Linked Objects

The objects in the application workspace are just references (or links) to the objects on the development server. They are not copies. For example, when you add a new program it will be visible in both the library workspace and the application workspace.

When you want to modify an object, you can do this either in the library workspace or in the application workspace. When an object is currently being modified by another user, the corresponding lock message is shown. A lock message is also shown when you try to open an object in library workspace that you are currently modifying in application workspace (and vice versa).

Note:
Not all commands are available in application workspace. For example, the commands **Delete** and **Rename** are only available in library workspace.

The following exception applies in application workspace when cataloging (CATALL) the objects in a library: only the objects that have been linked with the application are cataloged (i.e. only the objects that are shown in the application workspace). The objects that are only shown in the library workspace are ignored. To find out which objects have been cataloged for the library that is currently selected in library workspace, issue the LIST * command from the command line. You can then check the catalog date in the resulting window. The catalog date in the following example shows that only the first two objects have been cataloged recently.

Name	Type	User ID	Source Date	Source Size	▽ Catalog Date	Catalog Size	Mode
MENU1	Program	RKE	2001-07-10 11:59	55	2001-10-08 13:30	3000	Structured
PROG1	Program	RKE	2001-07-10 11:59	73	2001-10-08 13:30	3250	Structured
PROG2	Program	RKE	2001-07-10 12:00	55	2001-10-08 10:06	3000	Structured
MAINPGM	Program	RKE	2001-07-10 11:46	57	2001-10-08 10:06	3000	Structured
PROG3	Program	RKE	2001-07-10 12:00	55	2001-10-08 10:06	3000	Structured
TEXT2	Text	RKE	2001-07-10 12:01	49			
TEXT1	Text	RKE	2001-07-10 12:01	49			
COPYC1	Copycode	RKE	2001-07-10 11:44	71			Structured

Objects (Partial View: * *) [SPODLIB - IBM2 (4714)]

Mapping an Application

When you map an application, it is shown in the application workspace. You can map all applications that have already been defined on the development server that you have defined in the "Map Application Server" dialog box (i.e. the development server on which the Application Manager is located).
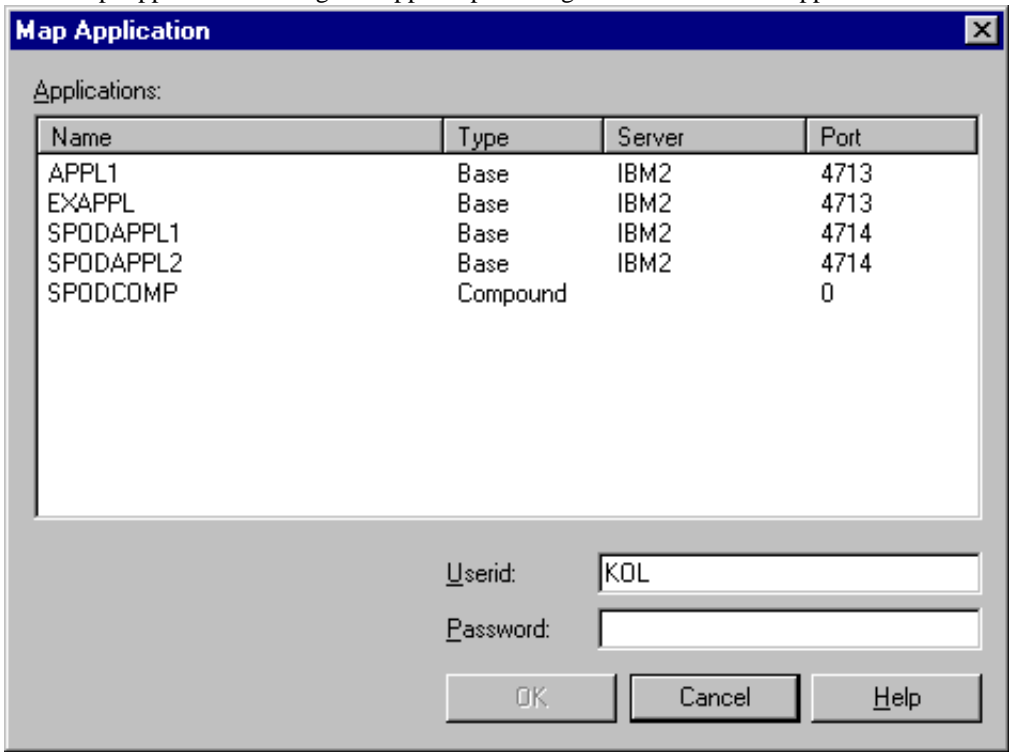
Each time you restart Natural Studio, your application workspace is empty. To display the previously mapped applications, click the plus sign next to the node name "Applications". As a result, all previously mapped applications are mapped again. If a password is required, further dialog boxes may appear in which you have to specify the missing information.

The following exercise explains how to map applications that you have not previously created (for example, applications that have been created by other users).

▶ **To map an application**

1. In the application workspace, click the node name "Applications" with the right mouse button.
2. From the resulting context menu, choose **Map**.
   The "Map Application" dialog box appears providing a list of all defined applications.

Name	Type	Server	Port
APPL1	Base	IBM2	4713
EXAPPL	Base	IBM2	4713
SPODAPPL1	Base	IBM2	4714
SPODAPPL2	Base	IBM2	4714
SPODCOMP	Compound		0

Userid: KOL
Password:
[OK] [Cancel] [Help]

3. Select the application you want to map.
4. Optionally. If a password is required, specify it in the "Password" text box.
   If you do not specify a required password, an additional dialog box will later prompt you for this information.
5. Choose the **OK** button.
   The application is now shown in the application workspace.
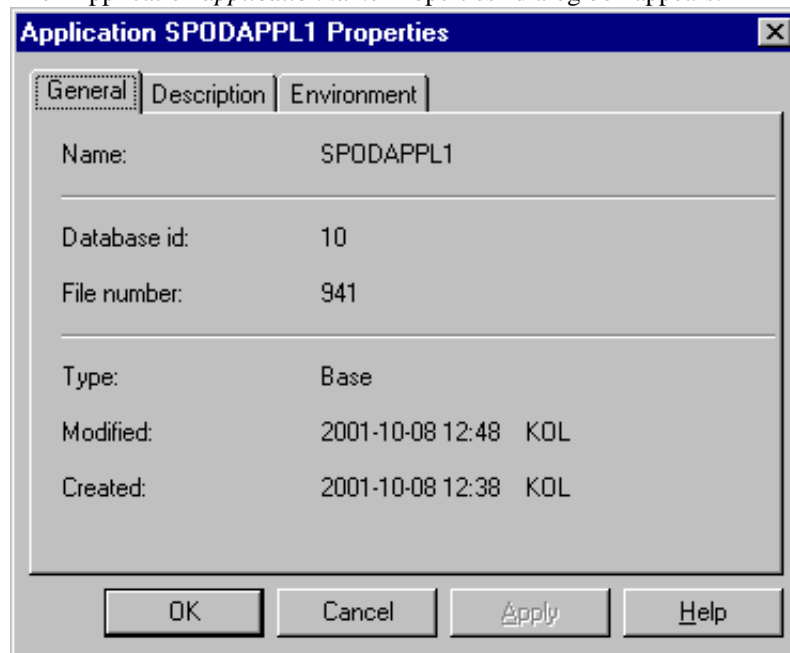
Displaying the Properties of an Application

If you need information about an application in the application workspace or if you want to change the settings of the application, you can display its properties.

▶ **To display the properties of an application**

1. In the application workspace, click the application for which you want to display the properties with the right mouse button.
2. From the resulting context menu, choose **Properties**.
   Or press ALT+ENTER.
   The "Application *applicationname* Properties" dialog box appears.

Application SPODAPPL1 Properties ✕

| General | Description | Environment |

Name: SPODAPPL1

Database id: 10

File number: 941

Type: Base

Modified: 2001-10-08 12:48   KOL

Created: 2001-10-08 12:38   KOL

     OK   Cancel   Apply   Help

3. Click the tabs "Description" and "Environment" to view the corresponding properties.
4. Choose the **OK** button to close the dialog box.

You have now successfully completed this tutorial.